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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/766,020	01/18/2001	Ji Zhang	CISCP158/3179	8083
22434	7590	07/27/2007	EXAMINER	
BEYER WEAVER LLP			AN, SHAWN S	
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OAKLAND, CA 94612-0250				
			ART UNIT	PAPER NUMBER
			2621	
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			07/27/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/766,020	<b>Applicant(s)</b> ZHANG ET AL.	
	<b>Examiner</b> Shawn S. An	<b>Art Unit</b> 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-8,11-15 and 26-33 is/are pending in the application.
- 4a) Of the above claim(s) 33 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,11-15 and 26-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Reopen Prosecution***

1. In view of the Pre-Brief filed on 5/22/07, and the Pre-Brief appeal conference held with the supervisor, Mehrdad Dastouri, and the primary Examiner, Shawn An, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, Appellant must exercise one of the following two options:

- (1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or
- (2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then Appellant must pay the difference between the increased fees and the amount previously paid.

### ***Response to Pre-Appeal Brief Request for Review***

2. Applicant's arguments with respect to currently pending claims have been considered but are moot in view of the new ground(s) of rejection.

**Note:** Newly added claim 33 corresponds to Applicant's specific embodiment of the present invention (figure 5C; Group 6), and the Applicant has previously elected group I (excludes Fig. 5C) including claims 1-15 and 26-30 in response to the election/restriction requirement as filed on 2/12/04.

Therefore, the newly added claim 33 has been withdrawn as discussed in the last Office action.

***Claim Rejections - 35 USC § 101***

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. The claimed invention is directed to non-statutory subject matter.

**Claim 30** (in preamble) comprises non-statutory subject matter.

The following is an example of acceptable language in overcoming non-statutory subject matter:

A. Computer readable medium encoded with computer executable instructions ..., the computer executable instructions comprising: ....

**Note:** Merits of this claim will be examined.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 3-5, 8, 14, 26, 28, and 30-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamilton (5,617,142).

**Regarding claims 1, 3, 26, 28, and 30-31**, Hamilton discloses a system/apparatus/method/software (Fig. 6; col. 11, lines 1-4) for converting the bit rate of a compressed bitstream, the system/method/software comprising:

memory (col. 3, lines 58-63; col. 8, lines 11-14) and processor(s) (Fig. 2, 52; Fig. 3, 60) coupled to the memory;

means for (basic) requantizing (Fig. 3, 60; Fig. 5, 106) a first portion (baseband compressed video data) of the bitstream that includes a B frame (col. 7, lines 8-11)

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including video data using a first re-quantization scheme that does not decode the first portion into a pixel domain (partial decoding, see Fig. 5, 102 and 104, output video data signal of the element 104 is in frequency domain); and

means for requantizing (Fig. 2, 52) a second portion (baseband compressed video data) of the bitstream that includes an I frame (bitstream inherently contain at least I frames) and video data using a second re-quantization scheme that includes full decoding (Fig. 4; Fig. 2, 50) and re-encoding (Fig. 2, 52) of the second portion (col. 5, line 63-col. 6, line 47).

**Regarding claim 4**, Hamilton discloses an MPEG compressed bitstream (col. 4, lines 8-13).

**Regarding claim 5**, Hamilton discloses determining the available bandwidth of the channel (col. 3, lines 44-57; col. 4, lines 58-61).

**Regarding claim 8**, Hamilton discloses a frame of video data (col. 7, lines 1-17).

**Regarding claim 14**, Hamilton discloses the first and second requantization schemes being performed in real time (col. 3, lines 44-63).

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 7, 12-13, 15, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton (5,617,142).

**Regarding claim 7**, Hamilton discloses changing the resolution of the first portion (col. 7, lines 29-39).

Therefore, it would have been considered obvious to one of skill in the art to recognize changing the resolution of the second portion as well as the first portion to

provide a compression level necessary for an intended application and/or to meet real time requirements of the intended application.

**Regarding claim 12**, Hamilton discloses the video portion of a TV signal comprising color video data (col. 1, lines 39-53).

Therefore, it would have been considered obvious to one of skill in the art to recognize the first portion (baseband compressed video data) comprising color video data for an obvious reason of providing color video data as opposed to black and white video data.

**Regarding claim 13**, Hamilton discloses the video portion of a TV signal comprising brightness (intensity of light emitted such as from the display surface) video data (col. 1, lines 39-53).

Therefore, it would have been considered obvious to one of skill in the art to recognize the second portion (baseband compressed video data) comprising brightness video data for an obvious reason of providing intensity values for each of the primary colors (R, G, B) of video data.

**Regarding claim 15**, the Examiner takes official notice that monitoring the processing load of a processor in a network device for changing the bit rate based on the processing load is well known in the art.

Therefore, it would have been considered obvious to one of skill in the art to recognize monitoring the processing load of a processor in a network device for an obvious reason of changing the bit rate based on the processing load.

**Regarding claim 27**, Hamilton discloses means for re-quantizing the first and the second portion as discussed with respect to claim 26.

Therefore, it would have been considered obvious to one of skill in the art to recognize integrating, means for re-quantizing the first portion and means for re-quantizing the second portion so that the means for re-quantizing the first portion is included in the means for re-quantizing the second portion, thereby being able to choose/select either the re-quantizing of the first portion or the re-quantizing of the second portion to accommodate corresponding first or the second portion of the

bitstream, and also reduce space by the integration of the means (two) so that the integrated device becomes smaller and more portable to use.

9. Claims 6, 29, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton (5,617,142) in view of Applicant's Admitted Prior Art.

**Regarding claim 6**, Hamilton does not particularly disclose the second re-quantization scheme creating a new MV for the second portion of the bitstream (col. 14, lines 27-42).

However, Applicant's Admitted Prior Art teaches a transcoder comprising a re-quantization scheme (Fig. 4C, 174) creating a new MV (Fig. 4C, 186) for a portion of the bitstream.

Therefore, it would have been considered obvious to one of skill in the art to recognize the second re-quantization scheme creating a new MV for the second portion of the bitstream to insure more accuracy representing the displaced error signal.

**Regarding claim 29**, Hamilton does not particularly disclose means for performing motion compensated re-quantization.

However, Applicant's Admitted Prior Art teaches a transcoder comprising means for performing motion compensated (Fig. 4C, 182) re-quantization (174).

Therefore, it would have been considered obvious to one of skill in the art to recognize the means for requantizing the second portion includes means for performing motion compensated re-quantization for an efficient way to re-compress (includes re-quantization) the second portion of the bitstream.

**Regarding claim 32**, Hamilton does not particularly disclose the second re-quantization scheme re-using a MV for the second portion of the bitstream (col. 14, lines 27-42).

However, Applicant's Admitted Prior Art teaches a transcoder comprising a re-quantization scheme (Fig. 4B, 134) re-using a MV (from 122 to 142) for a portion of the bitstream.

Therefore, it would have been considered obvious to one of skill in the art to recognize the second re-quantization scheme re-using the MV for the second portion of the bitstream to insure more accuracy representing the displaced error signal.

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton (5,617,142) in view of Haskell et al (5,687,095).

**Regarding claim 11**, Hamilton discloses the first portion including a P frame (col. 7, lines 1-17).

Hamilton does not particularly disclose the first portion including a P frame, wherein the P frame is the last P frame in a GOP.

However, Haskell et al teaches the compressed bit stream and the portion including the P frame, wherein the P frame is the last P frame in a GOP (col. 7, lines 22-29).

Therefore, it would have been considered obvious to a person of ordinary skill in the relevant art employing a method for converting the bit rate of a compressed bitstream as taught by Hamilton to incorporate Haskell et al's teachings as above so that the P frame is the last P frame in a GOP as an efficient method to perform faster video bit rate matching to accommodate real-time communications.

### **Conclusion**

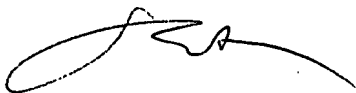
11. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to *Shawn S An* whose telephone number is 571-272-7324.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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13. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



**SHAWN AN**  
**PRIMARY EXAMINER**

7/21/07